

REMARKS:

The Examiner is thanked for the Office Action of March 17, 2003. Examiners Cynthia Kelly and Lawrence Ferguson are further thanked for the courtesy of an interview of June 17, 2003. During the interview, it was agreed that claims 1-30 define over the prior art of record, including U.S. Patent Nos. 4,131,664 to Flowers et al.; 5,871,614 to Turner; 3,927,235 to Chow; and 5,635,123 to Riebel et al.

In response to the Examiner's restriction requirement, Applicant hereby confirms with traverse the provisional election of claims 1-30, drawn to the composite article. Applicant submits that the classification for method claims 31-49 will necessarily embrace the classification of claims 1-30, and therefore submits that all claims should be prosecuted together in the instant application.

The Examiner has rejected claims 1-4, 9 and 22-23 as being obvious over Flowers et al., stating that hemp fibers are analogous to hemp hurd. As discussed during the interview, the hemp plant includes an outer fiber and an inner core, or hurd. The outer fibers are substantially longer than the hurd. For example, an outer hemp fiber may have an average length of about 55mm, whereas the hurd may have an average length of about 1 mm or less. The outer hemp fibers have been used for twine, packing, and heavy fabrics. (See Specification, page 7). However, the inner hurd has heretofore had little commercial value.

In the Flowers patent, the longer hemp fibers are used to form a matrix. A relatively large amount of resin, preferably 18-36% by weight, is then added to the matrix to form the disclosed panel. (See column 7, lines 17-20). The disclosed panel in the '664

patent is an acoustical and thermal insulating panel. Smoothness of the panel is not disclosed, and does not appear to be relevant in the Flowers panel.

In the present invention, hurd (i.e. the inner core) is used to form the claimed fibrous composite article. Specifically, the fibrous material is either hemp hurd, kenaf hurd, vegetable bamboo culms, and mixtures thereof. Independent claim 1 provides that the average fiber length of the material is less than about 2 mm. None of the references disclose a composite article formed from such fibers. In addition, none of the references teach or suggest the use of such fibers for forming a composite article. To the contrary, use of such fibers in the Flowers et al. patent would result in clumping of the fibers. Therefore, optimization of fiber length in the Flowers et al. patent suggests the use of longer fibers as opposed to shorter fibers.

The use of hurd in the present invention provides several key advantages over the prior art. Heretofore, hurd has typically been either a waste by-product, or used in animal feed or low-grade paper. Thus, use of hurd minimizes waste. In addition, it is relatively inexpensive compared to longer, outer fibers. Furthermore, the relatively short hurd material compresses together and fills the interstices of the material used to form the compressed article better than longer fibers. This, in turn, results in an article having a smooth surface, for example, having a smoothness value of at least about 2. In addition, less resin is required in the present invention compared to other conventional methods of forming a panel from fiber material. For example, claim 2 of the present invention provides for a resin in an amount of about 2-8 wt. %. By contrast, Flowers provides for a preferred resin content of 18-36 wt. %.

The Examiner also rejected claim 13 as being obvious over Flowers et al. in view of Chow (U.S. Patent No. 3,927,235). The Examiner stated that Chow teaches fibrous material comprising kenaf stalk, which is analogous to kenaf hurd. Claims 18-21 and 29-30 were rejected as being obvious over Flowers et al. in view of Chow, further in view of Turner (U.S. Patent No. 5,871,614). Claims 5-8, 10-12, 14-17, 24-28 were rejected as being obvious over Flowers et al. in view of Chow, further in view of Riebel et al. (U.S. Patent No. 5,635,123). None of the cited reference discloses or suggests the use of hurd, wherein the fibers have an average length of 2 mm or less, as agreed during the interview. For the reasons set forth above, Applicant submits that the rejections may be properly withdrawn.

Therefore, reconsideration of the application is respectfully requested. Applicant asserts that claims 1-30 define over all prior art of record, and allowance of same is earnestly solicited. Should additional clarification or explanation be required, the Examiner is invited to contact the undersigned via telephone or email. It is believed that no fee is due with this submission. If that determination is incorrect, then please debit Account No. 50-0548 and notify the undersigned.

Respectfully submitted,



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